National Renewable Energy Laboratory
Request for Proposals Number RAM-3-33200

Low Wind Speed Turbine Project – Phase II

READ THIS DOCUMENT CAREFULLY

This solicitation is being conducted under the streamlined procedures for competitive subcontracts established by the National Renewable Energy Laboratory (NREL). NREL will award a subcontract based on the following.

- All Statement of Work (SOW) requirements being met
- The best combination of:
  - Technical factors (Based on qualitative merit criteria) and
  - Evaluated price or cost

Issue Date: 07/15/03 Due Date: 11/17/03

Technical Questions must be received in writing no later than 09/30/03

1. Solicitation Type Streamlined Best Value Selection
Cost Reimbursable [OR] Cost Sharing

Submit offers to and request information from the NREL RFP contact below

2. NREL RFP Contact

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National Renewable Energy Laboratory
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Electronic (PDF) copies of forms, sample subcontract, and appendices can be found at: http://www.nrel.gov/contracts/index.html

3. Project description

Current cost of energy (COE) levels for wind energy have been achieved by focusing development on Class 6 wind resource sites (average wind speeds of 6.7 m/s @10 m height) and by taking advantage of the production tax credit (1.7 ¢/kWh in 2002 $). With favorable financial terms, Class 6 sites can market electricity at prices of 4 ¢/kWh or less before the subsidy. However, as more sites are developed, easily accessible prime Class 6 sites are becoming less available. In addition, many Class 6 sites are located in remote areas that do not have easy access to transmission lines. The full development of accessible Class 6 sites may cause wind energy growth to plateau in the near future unless improvements in technology can make lower wind speed sites more cost effective.

Class 4 wind sites (5.8 m/s @10 m) cover vast areas of the Great Plains from central and northern Texas to the Canadian border. Class 4 sites are also found along many coastal areas and along the shores of the Great Lakes. While the average distance of Class 6 sites from major load centers is 500 miles, Class 4 sites are significantly closer, with an average distance of 100 miles from load centers. Utility access to these Class 4 sites is more attractive and less costly. Also, Class 4 sites represent almost 20 times the developable wind resource of Class 6 sites. Currently electricity at Class 4 sites can be generated at costs in the range of 5 to 6 ¢/kWh. Also, there are numerous Class 4 regions in the offshore waters of the US Great Lakes, Atlantic, Pacific and Gulf coastlines, many in close proximity to large load centers. The cost impact of offshore development, though not completely quantified is expected to increase overall COE by approximately 25% to 50%. Such offshore sites represent resources that can serve important coastal power markets through improving cost effectiveness in the technology.

Low Wind Speed Technology (LWST) Goal and Strategy

The Federal Wind Energy program has defined goals for its technology development activities that will position wind as an attractive advanced technology option for the twenty-first century. The LWST goal is:

- By 2012, reduce the cost of electricity from large wind systems in Class 4 winds to 3 ¢/kWh for onshore systems or 5 ¢/kWh for offshore systems.

In 2001, the DOE Wind Energy Program launched a major new effort to reach the LWST goal. The program currently envisions that the LWST project will represent an increasingly larger portion of total program funds over the remainder of this decade. The strategy for the Low Wind Speed Technology (LWST) project was developed in cooperation with industry, and guided by several principles:

- Public/private partnerships will be developed to support continuing innovation. They will be flexible and adaptive, support multiple pathways, and offer repeated opportunities for new players to enter the program.
- Program research and testing activities will be closely aligned to support public/private partnerships.
- Applied systems integration activities will guide portfolio planning and technology transfer.
- Program evaluations performed regularly using performance-based management techniques will provide a strong analytical basis for performance criteria, periodic review, and adjustment.

A Phase I request for proposals (RFP) under the Low Wind Speed Technology (LWST) project was issued on October 19, 2001. The RFP offered bidders an opportunity to participate in one of three technical areas; 1) Concept and Scaling studies, 2) Component Development, and 3) Prototype Turbine Development. Two proposals were selected under each of these technical areas for negotiations leading to NREL subcontract awards.

4. Proposed Subcontract Award and Period of Performance

This RFP represents the second phase of the Low Wind Speed Technology project. This RFP continues on the theme and purpose of the first round of solicitations, and is structured to support the goals and objectives as outlined in the first RFP, with minor modifications in the goals and objectives for this RFP. Recognizing that innovative ideas and highly motivated new teams can materialize at any time, this RFP represents an additional and new entry point in the LWST project. In addition, a team that developed or is developing a promising idea from the first phase may wish to proceed with full-scale component development and tests or full scale prototype development under this RFP. A similar RFP will be issued in a third procurement phase of the LWST project to ensure that new concepts, components and development teams have the opportunity to emerge.

DOE/NREL plans to use its ongoing R&D program efforts to guide its selection of competing technologies and in winnowing out questionable concepts in favor of more robust ones. Moreover, to achieve the COE targets in the year 2012 as planned, new concepts and components will need to enter the development cycle quickly. For these reasons, DOE/NREL, as part of its budget planning, will conduct an annual review of the LWST technology portfolio to critically assess project performance.

Development of a new wind turbine that results from the best design practices and incorporates the latest technology must proceed in measured steps spanning several years. The LWST project encompasses this complete process. To encourage broad industry participation and to unveil the most promising ideas, the LWST scope of work is designed to accommodate broadly disparate, but related activities. There are three anticipated areas of participation (Technical Areas): 1) Conceptual Design Study, 2) Component Development, and 3) LWST Prototype Development. An offeror may submit more than one response to this RFP, but only one area of participation (Technical Area) may be proposed in each response. If selected for an award, the Subcontractor shall complete the specific scope of work associated with the chosen Technical Area.

DOE/NREL expects future efforts to focus on one of two application paths – 1) onshore deployment to achieve the 3 ¢/kWh objective in Class 4 winds, and, recognizing the cost of energy differences between the two deployment locations; and 2) offshore deployment to achieve the 5 ¢/kWh objective in Class 4 winds.

In the interest of diversity DOE/NREL will not entertain proposals that propose the development of a subsystem or component from an offeror who is already under subcontract to develop a like component or subsystem. Nor is it the intention of the program to entertain proposals for a prototype wind turbine from an offeror who is already developing such a machine for the same application. (For example, no awards will be contemplated for a company developing a prototype turbine for onshore who is currently under subcontract to develop another such onshore prototype.)

While considering the importance of diversity, the program is also cognizant of the technical pathways that show high likelihood of contributing to achieving the program goals within the planned time frame. While vertical axis wind turbine designs may have potential, the current status of vertical axis technology, development and commercialization does not indicate that they can contribute to achieving this goal in the

time allowed. Therefore, DOE/NREL has decided that Phase II of the LWST project will be limited to Horizontal Axis Wind Turbine designs.

This RFP requires an offeror to describe its proposed project in sufficient detail to be understood and evaluated by a group of knowledgeable reviewers. Offerors must also identify their planned teaming arrangements, cost/price proposals and schedule. Responses to the RFP will be evaluated by qualified business and technical professionals.

Conceptual Design Studies (Technical Area 1) are envisioned as 4-6 month efforts with the maximum DOE funding being $200,000 for any single award. The program intends to use a cost reimbursable type of subcontract, and cost sharing will not be required of participants under Conceptual Design Studies subcontracts. However, proposals for Conceptual Design Studies that do propose cost sharing above the $200,000 will be considered. In addition to studies on well established improvement pathways, proposer's may also wish to consider innovative approaches to the following technical issues:

- Integrated sensors and controls (improved actuators, sensors, control algorithms, inflow sensors, health monitoring)
- Advanced rotor designs (slats, ailerons, flaps, tabs, aeroacoustic mitigation)
- Offshore (innovative foundations, floating platforms for deep water, anchoring, dynamics, electrical transmission, marine materials)
- Wind systems design for systems integration (wind hydro integration, desalination, wind hydrogen production)

Component Development (Technical Area 2) is envisioned as a 2-3 year effort with the maximum DOE funding being $2 million for any single award.

LWST Prototype Development (Technical Area 3) is envisioned as a 2-4 year effort with the maximum DOE funding being $8 million for any single award. Commercial prototype wind turbines under Phase II are expected to operate by 2008. These expectations do not preclude an offeror from proposing projects of different duration or cost.

For Component Development subcontracts, the minimum direct cost sharing required of industry participants will be 30%. For LWST Prototype Development subcontracts, the minimum direct cost sharing required of industry participants will be 30%. However, much greater consideration will be given during the evaluation process to proposals with proposed cost shares that exceed the 30% and are closer to DOE/NREL goals of 50%.

Cost sharing from other public non-Federal sources will be allowed. However a minimum of at least 20% of cost sharing must come from private sources. Private meaning non federal, and other than state or municipal government sources.

For Component Development and LWST Prototype Development subcontracts, DOE/NREL anticipates being able to offer the subcontractor the right to claim and mark, as "Protected Wind Technology Data," specific data first produced in the performance of the subcontract. Any such claimed and marked "Protected Wind Technology Data" will not be published, disseminated, or disclosed to others outside the Government and NREL, by the Government and NREL, for a period (as approved by DOE) of up to five (5) years after production of the data. This right to claim and mark specific technical data will be addressed on a case-by-case basis for each Component Development and LWST Prototype

Development subcontract considering the technology involved as well as other factors. Such data will be subject to release by the Government and NREL after the time period (up to five years) expires. The transfer or assignment of protected wind technology to a foreign entity is subject to prior written approval by DOE. If DOE determines that such transfer or assignment to a foreign entity does not support the competitiveness of US industry, the Government may, in its sole discretion, publish or otherwise release the data or alternatively require continued protection of the data until expiration of the protection period on such terms as DOE deems appropriate and consistent with DOE programmatic objectives.

NREL expects to award 1-3 subcontracts in each area of participation (Technical Area). Each project will be funded incrementally on an annual fiscal year basis. Throughout the projects, NREL will encourage the use of best business and project-management practices. Disciplined engineering development processes, including rigorous laboratory and field tests to verify component and subsystem designs, will be emphasized.

Based on current funding plans and commitments, funding amounts for new subcontracts may be limited in 2004 and 2005. Funding amounts available for new subcontracts for each planned year will be established during final negotiations.

5. Competitive negotiated subcontract using Best Value Selection

This solicitation shall be conducted using Best Value Selection that results in an award based on the best value combination of (a) highest evaluated qualitative merit and (b) lowest evaluated price/cost of the offers submitted.

Best Value Selection is based on the premise that, if all offers are of approximately equal qualitative merit, award will be made to the Offeror with the lowest evaluated price/cost. However, NREL will consider awarding to an offeror with a higher evaluated price/cost if the offer demonstrates the difference in price/cost is commensurate with the higher qualitative merit. Conversely, NREL will consider awarding to an offeror with a lower evaluated qualitative merit if the price/cost differential between it and other offers warrant doing so.

6. Qualitative merit and price/cost criteria for Best Value Selection

The Statement of Work (Attachment 1) in this Request for Proposals serves as NREL's baseline requirements that must be met by each offer.

The qualitative merit criteria establish what NREL considers the technical factors valuable in an offer. These qualitative merit criteria are performance-based and permit selection of the offer that provides higher qualitative merit for a reasonable, marginal increase in price/cost.

The following qualitative merit and price/cost criteria will be used by evaluators to judge the technical value of the offer in meeting the objectives of the solicitation.

The following criteria shall be used to evaluate proposals.

A. Technical Merit – the technical merit of the proposed concept.

B. Projected Cost of Energy (COE) – the likelihood that the proposed concept, if implemented, will achieve the COE objective.
C. Technical Capability of the Offeror's Team – the technical capability of the Offeror, including its team members, to successfully complete the Statement of Work.
D. Financial Capability of the Offeror's Team – the financial capability of the Offeror, including its team members, to successfully complete the Statement of Work.
E. Quality of the Conceptual Design Study Plan (Technical Area 1), Component Development Plan (Technical Area 2), or LWST Prototype Development Plan (Technical Area 3) – the likelihood of achieving the project objectives through implementation of the proposed work plan.
F. Cost Realism – the realism of the proposed project cost relative to the scope of work.
G. Proposed Cost Sharing – the magnitude of the proposed cost share relative to other qualified offerors.

Evaluation Criteria Weight for the Three Areas of Participation (Technical Areas)

Criteria	Technical Area 1	Technical Area 2	Technical Area 3
A	30%	20%	20%
B	20%	20%	20%
C	30%	20%	20%
D	0	20%	20%
E	10%	10%	5%
F	10%	5%	5%
G	0	5%	10%

When combined, the qualitative merit criteria are significantly more important than price/cost. However as qualitative merit tends to equalize among offers, price/cost may become more important in the selection decision.

7. Programmatic Factors

In addition to the qualitative merit criteria above, NREL may consider the following programmatic factors in making a competitive range determination and final negotiation rank order. The programmatic factors are not weighted.

- Compliance with DOE's planned funding level
- Diversity of technology within the DOE sponsored wind turbine research activities
- Diversity of participants in the DOE wind energy program
- Support of U.S. economic interests – NREL has elected to apply Energy Policy Act standards to this solicitation. The Offeror will be required to demonstrate that the proposed technology conforms with provisions of the Energy Policy Act of 1992 stating that "A company shall be eligible to receive financial assistance under titles XX through XXIII of this Act only if :

  (1) the Secretary finds that the company's participation in any program under such titles would be in the economic interest of the United States, as evidenced by investments in the United States in research, development, and manufacturing (including, for example, the manufacture of major components or subassemblies in the United States); significant contributions to employment in the United States; an

agreement with respect to any technology arising from assistance provided under this section to promote the manufacture within the Untied States of products resulting from that technology (taking into account the goals of promoting the competitiveness of United States industry), and to procure parts and materials from competitive suppliers; and

(2) either (a) the company is a United States-owned company; or (b) the Secretary finds that the company is incorporated in the United States and has a parent company which is incorporated in a country which affords to United States-owned companies opportunities, comparable to those afforded to any other company, to participate in any joint venture similar to those authorized under this Act; affords to United States-owned companies local investment opportunities comparable to those afforded to any other company; and affords adequate and effective protection for the intellectual property rights of United States-owned companies."

8. Evaluation process

NREL will evaluate offers in two general steps:

Step One—Initial Evaluation
An initial evaluation will be performed to determine if all required information has been provided for an acceptable offer. Offerors may be contacted only for clarification purposes during the initial evaluation. Offerors shall be notified if their offer is determined unacceptable and the reasons for rejection will be provided. Unacceptable offers will be excluded from further consideration.

Step Two—Discussion, Selection, Negotiation, and Award
All acceptable offers will be evaluated against the Statement of Work (Attachment 1) and the qualitative merit criteria listed above. Based on this evaluation, NREL has the option, depending on the specific circumstances of the offers received, to use one of the following methods of selection:

(a) make selection(s), conduct negotiations, and make award(s) without discussions;
(b) conduct parallel negotiations with all offerors and make award(s);
(c) conduct discussions with all offerors, select successful finalists, conduct parallel negotiations with successful finalists, and then make award(s);
(d) conduct discussions with all offerors, conduct parallel negotiations with the finalists, select successful finalist(s), and then make award(s);
(e) select successful finalists, conduct successive negotiations, and make successive selections and awards;
(f) make no award(s).

9. Proposal Preparation Instructions

One (1) unbound original and fifteen (15) bound copies of the Proposal should be submitted to NREL To aid in the evaluation process, it is desired that all proposals are prepared in accordance with these instructions, be responsive to the requirements of

the Statement of Work (Attachment 1), and address the Qualitative Merit and Price/Cost Criteria described above.

Because the Technical Proposal will primarily determine the capability of the Offeror to participate in this procurement, it should be specific and complete in every detail. The Technical Proposal should include a practical technical approach and should be prepared simply and economically, providing straightforward, concise delineation of capabilities necessary to satisfactorily perform the requirements being solicited.

The Technical Proposal should contain an outline of the proposed lines of investigation; method of approach to the problem; a logical division of work elements or steps necessary to meet the requirements of this solicitation; the estimated time required to complete each work element; and any other information considered pertinent to the problem or requirement. The Offeror should not merely propose to perform the work in accordance with the Statement of Work, but should outline the actual work proposed as specifically as possible.

The Technical Proposal should focus on engineering and project management issues. Information should be provided on the following topics, as a minimum:

- a description of the proposed effort,
- the projected cost-of-energy (COE),
- the project plan, and
- the project team.

Work tasks for the three areas of participation (Technical Areas) are listed in the Statement of Work appended to this RFP. The Work Tasks for Technical Area 1, Conceptual Design Study, are intended to be very specific, with a limited number of tasks. While the Offeror is free to perform whatever work is necessary to demonstrate the potential of its concept for future LWST Prototype Development, NREL funding will be limited to the effort required to complete the tasks specified in the Statement of Work.

The Work Tasks for Technical Area 2, Component Development, are intended to be very specific and are based on NREL's experience in projects of similar scope. Although the final Statement of Work is somewhat flexible, offerors that wish to deviate from the specified Statement of Work should provide convincing justification in the Technical Proposal.

The Work Tasks for Technical Area 3, LWT Prototype Development, provide the suggested elements of the Statement of Work. Offerors having the skill and experience required to complete this challenging project may also have a development approach that deviates somewhat from the described tasks. The final Statement of Work is somewhat flexible, and offerors are encouraged to thoroughly explain any deviations from NREL's suggested work tasks.

In preparing its Technical Proposal, the Offeror should refer frequently to the following instructions and to the Qualitative Merit Criteria in item 6 above. Proposals that deviate from these requirements are likely to score lower in the evaluation process.

The Technical Proposal shall, as a minimum, contain the information listed below in accordance with the specified format. It should be no more than twenty-five (25) pages in length, legibly typewritten in 11-point font size on 8-1/2" x 11" paper (any suggested number of pages per section is meant to be guidance only). Pages should be arranged (and bound copies should be printed) back-to-back with odd-numbered pages on the right. Tables and figures should be referenced by number, and ***every page should be numbered sequentially.*** Relevant publications, references and achievements may be cited, but copies should not be included. The proposal should be organized as follows:

A. Technical Proposal

Page i - Front Cover

The front cover should indicate the Name and Date of the Proposal; Name, Address and Telephone Number of the Offeror, the RFP Number and Name. It should also identify the Technical Area (Conceptual Design Study, Component Development, or LWST Prototype Development) the proposal is intended to cover. An Abstract of the Proposal should also appear, along with the signatures of the Principal Investigator, Project Manager (if any) and a Business Official authorized to commit the Offeror to contractual instruments.

Page ii - Inside Front Cover

The inside front cover should be left blank.

Page iii - Table of Contents and List of Tables and Figures

If the Table of Contents and List of Tables and Figures fit on Page iii, Page iv should be left blank. Otherwise, it may be used for a continuation of those sections.

Technical Approach

This section addresses the Statement of Work requirements, the Offeror's approach toward satisfying the objectives of the Statement of Work, and the Offeror's capabilities, resources, and experience in the required project area as outlined in the following subsections:

Page 1 – Technical Description of Proposed Project **4-6 pages**

NREL recognizes that by the very nature of this project, the Offeror's concept or proposed development may not be well defined. It may be one for which a prototype already exists and about which much is known, or it may be in the early stages of formulation. Nevertheless, the Offeror must describe to the best of its ability, the important aspects of the technology and its proposed embodiment. Therefore, this section of the proposal should include:

- a discussion of the proposed concept, including calculations, drawings, graphs and narrative material, as appropriate,
- a description of the major components and subsystems,
- a description of noteworthy innovations and improvements in technology,

- a discussion of those items that are essential to the success of the concept, require extensive development effort, or present extraordinary risk,
- advantages and disadvantages of the concept compared to existing technology, the reasons for selecting the concept, including technical, marketing, financial, environmental and operational factors, as appropriate, and
- a discussion of any unusual features that should be considered in assessing the ability of the concept to achieve the project goals and objectives.

Projected Cost of Energy **2-3 pages**

The Offeror shall provide a preliminary COE analysis in accordance with Attachments C and D of the Statement of Work, including information that is known or can be estimated regarding system performance, initial capital costs, O&M costs and replacement costs. Sufficient backup information should be provided to indicate the likelihood of the proposed concept meeting the COE objective.

Conceptual Design Study Plan (Technical Area 1) **2-3 pages**

Only those offerors selecting this area of participation (Technical Area 1) should address this section. Offerors selecting Technical Area 2 or Technical Area 3 should proceed to the next section.

This section should describe the Offeror's plans to accomplish the tasks specified in the Statement of Work, including meetings and deliverables.

Because of the short duration and limited scope of the Conceptual Design Study, the Statement of Work does not require the development of a project work plan to be used in conducting the study. A successful offeror will perform the work in the most expeditious and efficient manner possible using the appropriate level of planning. In this section of the Technical Proposal, the Offeror should explain how it intends to perform the Conceptual Design Study, including a description of the following:

- a project organizational chart showing the Offeror's relationship to its anticipated consultants, lower-tier subcontractors, advisors and affiliates,
- a project labor plan showing the proposed labor hours by activity and labor type for both employees and consultants, and
- the methods and procedures used for engineering analysis and cost-of-energy studies.

Component Development Plan (Technical Area 2) or **3-4 pages**
LWT Prototype Development Plan (Technical Area 3) **4-5 pages**

NREL recognizes that any plans now envisioned by the Offeror are subject to evaluation and refinement. Nevertheless, the Offeror must describe to the best of its ability, the work plan it anticipates using to complete the project. In its description, the Offeror should include the project organizational structure, labor plan, and schedule along with any other items it feels are necessary to successfully complete the project. Major work tasks should be identified and briefly described by providing the following information, as a minimum:

- task/subtask number, name, objective and expected results,
- a concise description of the work to be performed,
- noteworthy issues relating to analysis, design, testing, materials or facilities, and
- required staffing, including consultants and lower-tier subcontractors.

To the extent that it can be anticipated, the following information should also be provided:

- a project organizational chart showing the Offeror's relationship to its anticipated consultants, lower-tier subcontractors, advisors and affiliates,
- a project labor plan showing the anticipated labor hours by task/subtask and labor type for both employees and consultants,
- a project schedule in bar-chart format indicating the period of performance for each activity and for the entire project, and
- milestones, reports, meetings and deliverables depicted on the project schedule.

The Subcontractor's Environmental Safety and Health (ES&H) procedures should be described in sufficient detail to ensure that the project will be performed with the highest regard for human health and safety, preservation of the environment and compliance with applicable laws. The Subcontractor's Quality Assurance (QA) procedures shall be described in sufficient detail to ensure that all work tasks are performed properly to achieve results that meet predetermined quality levels.

Project Team **4-5 pages**

This section of the Technical Proposal should provide the information needed to evaluate the capability of the Offeror and its team members to successfully complete its project plan. Emphasis should be placed on the specific wind-energy experience of the Offeror, particularly the project manager, principal investigator and activity leaders. It is essential for the Offeror, including its team, to have ***wind-energy*** experience, not just broad-based engineering and project-management experience. The project manager should have demonstrated ***project-management*** experience with developments of similar scope, and a substantial portion of his or her time and physical presence should be devoted to the project. It is understood that this information will be preliminary in nature, and that more specific teaming arrangements may develop during the project. Nevertheless, to the extent that it can be anticipated, the Offeror should provide the following information:

- a description of the Offeror's team, and its experience in wind-energy and other related businesses,
- the name, education, description/duration of relevant experience of the anticipated project manager, principal investigator and key activity leaders,
- qualifications and relevant experience of the anticipated engineering team,
- anticipated manufacturing and commercialization plans, if appropriate, and
- a description of the nature, source and availability of facilities and equipment.

References

This section may contain the citations of relevant publications, references and achievements of key personnel, but copies of these materials should not be included.

Rear Cover

The inside and outside of the rear cover should be left blank.

B. Cost Proposal

A completed "Price/Cost Proposal Form"submitted with your offer (See Item 10-Solicitation provisions). Your price/cost proposal should include support documentation for all categories of the proposed price/cost. (See Price/Cost Proposal Preparation Instructions included with Price/Cost Proposal). A cost proposal form shall be completed for each year (phase) of the project and for a summary of the entire project (project total).

It is NREL/DOE's objective that all prototype turbines remain the property of the subcontractor. In order to accomplish this, the subcontractor's cost share must cover the cost of all material and equipment under the subcontract. Subcontractor's should prepare their proposals to reflect their cost share covering this material and equipment. If the subcontractor finds it financially difficult to accomplish this, due to the large cost of the prototype turbine, then the turbine will remain the property of DOE. In this case the subcontractor must be prepared to put in place a method of accounting for revenue from prototype turbine power production and crediting the subcontract for these incomes. The subcontractor must also estimate and include the cost in the proposal for removing the prototype at the end of testing and returning it to NREL.

C. Summary of Deviations/Exceptions

A summary of deviations/exceptions to the subcontract schedule (attachment 3) and the standard terms and conditions and/or the intellectual property terms and conditions in the referenced appendices must be identified. The Offeror will explain any exceptions (including deviations and conditional assumptions) taken with respect to this Request for Proposals. Any exceptions must contain sufficient amplification and justification to permit evaluation. Such exceptions will not, of themselves, automatically cause an offer to be termed unacceptable. A large number of exceptions or one or more significant exceptions not providing any obvious benefit to the Government or NREL may, however, result in rejection of such offer as unacceptable.

D. A completed "**Representations and Certifications**" form (see item 11-Solicitation provisions)

E. A completed "**Environmental Checklist and Environmental Questionaire**" form - **National Environmental Policy Act (NEPA) Requirements** (see attachment 2 and item 11-Solicitation provisions)

The National Environmental Policy Act (NEPA) requires federal agencies and their contractors to evaluate the potential environmental effects of proposed activities before those activities begin. NREL and DOE begin this environmental review process using an Environmental Checklist that is completed by offerors based on their knowledge of the proposed project and

work site(s). The Checklist calls for information on various resource areas (e.g. air, water, land, biological, cultural), existing and anticipated permits, waste streams and emissions, and other considerations such as noise and aesthetics.

The extent of the environmental review is commensurate with the scale and location of the project as well as the environmental conditions at the project site. NREL's environmental review may be completed with issuance of a DOE NEPA Determination based only on the Environmental Checklist, or the offeror may be asked to provide additional information. In some cases if warranted by project circumstances, more extensive environmental review may be conducted in the form of an Environmental Assessment (EA) or an Environmental Impact Statement (EIS). These will require ongoing coordination with the offeror, and offerors will be expected to cooperate fully with requests for information and site access in support of the EA/EIS process. Preparation of an EA or EIS is, by law, a process that involves public review and comment. Although a comprehensive description of the project is needed for purposes of the EA/EIS, proprietary details of products and processes are generally not needed.

F. A completed **"Small Business (Lower-Tier) Subcontracting Plan**" form (see item 11-Solicitation provisions)

This solicitation does not allow the submittal of facsimile or electronic proposals.

This solicitation does not commit NREL to pay costs incurred in the preparation and submission of a proposal in response to this RFP.

10. Solicitation Provisions—full text provided

a. Late submissions, modifications, and withdrawals of offers
Offers, or modifications to them, received from qualified organizations after the latest date specified for receipt may be considered if received prior to award, and NREL determines that there is a potential price/cost, technical, or other advantage, as compared to the other offers received. However, depending on the circumstances surrounding the late submission or modification, NREL may consider a late offer to be an indication of the Offeror's performance capabilities, resulting in downgrading of the offer by NREL evaluators in the technical evaluation process. Offers may be withdrawn by written notice or telegram (including mailgram) received at any time before award. Offers may be withdrawn in person by an offeror or an authorized representative, if the representative's identity is made known and the representative signs a receipt for the offer before award.

b. Restrictions on disclosure and use of data
Offerors who include in their proposals data that they do not want disclosed to the public for any purpose or used by the government or NREL, except for evaluation purposes shall—

1. Mark the title page with the following legend:
   "This offer includes data that shall not be disclosed outside the Government or NREL and shall not be used or disclosed—in whole or in part—for any purpose other than to evaluate this offer. If, however, a subcontract is awarded to this offeror as a result of—or in connection with—the submission of this data, the Government or NREL shall have the right to use or disclosure the data to the extent provided in the resulting subcontract. This restriction does not limit the Government's or NREL's right to use information contained in this data if obtained from another source without restriction. The data subject to this restriction are contained on pages [insert page and line numbers or other identification of pages] of this offer; and

2. Mark each page of data it wishes to restrict with the following legend:
   "Use or disclosure of data contained on this page is subject to the restriction on the title page of this offer."

c. Notice of right to receive patent waiver (derived from DEAR 952.227-84) and technical data requirements

Offerors (and their prospective lower-tier subcontractors) in accordance with applicable statutes and Department of Energy Acquisition Regulations, (derived from DEAR 952.227-84) have the right to request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of the subcontract that may be awarded as a result of this solicitation, in advance of or within thirty (30) days after the effective date of subcontracting. Even where such advance waiver is not requested or the request is denied, the subcontractor will have a continuing right during the subcontract to request a waiver of the rights of the United States in identified, individual inventions.

Domestic small business firms, educational institutions, and domestic nonprofit organizations normally will receive the Patent rights clause—retention by the subcontractor—which permits the offeror to retain title to subject inventions, except in subcontracts involving exceptional circumstances or intelligence activities. Therefore, domestic small business firms, educational institutions, and domestic nonprofit organizations normally need not request a waiver.

If an offeror's proposal includes a lower-tier subcontract to another organization, that lower-tier organization's business type will determine the applicable intellectual property provisions that will apply to the lower-tier subcontract. Note that a lower-tier subcontractor may apply for a patent waiver under the same conditions as the offeror.

Under a research, development, and demonstration project, the Department of Energy and NREL are unable to ascertain, prior to receipt of offers or performance of the project, their actual needs for technical data. It is believed that the requirements contained herein are the basic needs of the Department of Energy and NREL. However, if the offeror indicates in its proposal that proprietary data will be used or withheld under its proposed effort, the

Department of Energy and NREL reserve the right to negotiate appropriate rights to the proprietary data. The appropriate rights may include "Limited Rights in Proprietary Data" and/or "Subcontractor Licensing."

d. Disclaimer

NEITHER THE UNTED STATES; NOR THE DEPARTMENT OF ENERGY; NOR MIDWEST RESEARCH INSTITUTE, NATIONAL RENEWABLE ENERGY LABORATORY DIVISION; NOR ANY OF THEIR CONTRACTORS, SUBCONTRACTORS, OR THEIR EMPLOYEES MAKES ANY WARRANTY, EXPRESS OR IMPLED, OR ASSUMES ANY LEGAL LIABILITY OR RESPONSIBILITY FOR THE ACCURACY, COMPLETENESS, OR USEFULLNESS FOR ANY PURPOSE OF ANY OF THE TECHNICAL INFORMATION OR DATA ATTACHED OR OTHERWISE PROVIDED HEREIN AS REFERENCE MATERIAL.

e. Solicitation disputes

The General Accounting Office and the Department of Energy no longer accept or rule on disputes from offerors for the handling of mistakes in solicitations for Requests for Proposals by Management and Operating Contractors for the Department of Energy. Should an offeror have any concerns regarding the NREL solicitation process or selection determination, the Offeror may contact Marty Noland, Advocate for Commercial Practices at (303) 384-7550. NREL will address each concern received from an offeror on an individual basis.

f. Pre-award On-site Equal Opportunity Compliance Evaluation (derived from FAR 52.222-24)

If a subcontract in the amount of $10 million or more will result from this solicitation, the prospective Subcontractor and its known lower-tier subcontractors with anticipated lower-tier subcontracts of $10 million or more shall be subject to a pre-award compliance evaluation by the Office of Federal Contract Compliance Programs (OFCCP), unless, within the preceding 24 months, OFCCP has conducted an evaluation and found the prospective Subcontractor and lower-tier subcontractors to be in compliance with Executive Order 11246.

g. Small Business (Lower-Tier) Subcontracting Plan (derived from FAR 52.219-9)

The following requirement <u>does not</u> apply to small business offerors.

Proposals submitted in response to this solicitation shall include a lower-tier subcontracting plan that separately addresses lower-tier subcontracting with small business, small disadvantaged business, and women-owned small business concerns. If the Offeror is submitting an individual subcontract plan, the plan must separately address lower-tier subcontracting with small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic subcontract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant subcontract. The lower-tier subcontracting plan shall be negotiated within the time specified

by the NREL Subcontract Administrator. Failure to submit and negotiate a lower-tier subcontracting plan shall make the Offeror ineligible for award of a subcontract. (see item 13 – Solicitation Provisions)

11. Solicitation provisions—incorporated by reference

This solicitation incorporates one or more solicitation provisions by reference with the same force and effect as if they were given in full text. The following documents can be obtained from the NREL web site at www.nrel.gov/contracts/index.html or the Issuer (See item 2) will make full text available upon request.

- NREL Standard Terms and Conditions:
  - Appendix B-1
- NREL Intellectual Property Provisions:
  - Appendix C-1 (Applicable if Offeror is a large business, state and local government, or foreign organization)
    OR
  - Appendix C-2 (Applicable if Offeror is a domestic small business, educational institution, or other nonprofit organization)
- NREL Terms and Conditions for Subcontracts in excess of $500,000.00
  - Appendix D-1
- NREL Representations and Certifications for Subcontracts (05/13/03)
- NREL Price/Cost Proposal Form and Instructions (07/18/02)
- National Environmental Policy Act Requirements – Environmental Questionnaire (Also see Attachment 2 - Environmental Checklist).
- NREL "Small Business (Lower-Tier) Subcontracting Plan"

12. NAICS Code and Small Business Size Standard

a. The North American industry Classification System (NAICS) code [formerly standard industrial classification (SIC)] for this solicitation is 541710.

b. The small business size standard for 541710 is 500 or fewer employees.